A new procedure based on mutual information for fault diagnosis of industrial systems

Submitted by Sylvain Verron on Mon, 06/13/2016 - 12:58

Titre	A new procedure based on mutual information for fault diagnosis of industrial systems
Type de publication	Communication
Type	Communication sans actes dans un congrès
Année	2006
Langue	Anglais
Date du colloque	16-17/11/2006
Titre du colloque	Workshop on Advanced Control and Diagnosis (ACD'06)
Auteur	Verron, Sylvain [1], Tiplica, Téodor [2], Kobi, Abdessamad [3]
Pays	France
Ville	Nancy
Mots-clés	bayesian net work classi ers [4], fault diagnosis [5]
Résumé en anglais	The purpose of this article is to present a new procedure for industrial process diagnosis.This method is based on bayesian classifiers. A feature selection is done before the classification between the different faults of a process. The feature selection is based on a new result about mutual information that we demonstrate. The performances of this method are evaluated on the data of a benchmark example:the Tennessee Eastman Process. Three kinds of fault are taken into account on this complex process.The challenging objective is to obtain the minimal recognition errorrate for these 3 faults. Results are given and compared on the same data with those of other published methods.
URL de la notice	http://okina.univ-angers.fr/publications/ua14721 [6]
Lien vers le document en ligne	https://hal.inria.fr/inria-00517015 [7]

Liens

[1] http://okina.univ-angers.fr/sylvain.verron/publications
[2] http://okina.univ-angers.fr/teodor.tiplica/publications
[3] http://okina.univ-angers.fr/a.kobi/publications
[4] http://okina.univ-angers.fr/publications?f[keyword]=21114
[5] http://okina.univ-angers.fr/publications?f[keyword]=6672
[6] http://okina.univ-angers.fr/publications/ua14721
[7] https://hal.inria.fr/inria-00517015